

IN THE CLAIMS

Please withdraw claims 1-20, 35-41, 45-59 and 66-79 without prejudice to their consideration in a continuing application.

Please amend claims 60, 64 and 65 as shown below

Please add new claims 80-92 as shown below.

1-20. (withdrawn)

21. (original) An apparatus for boring a hole with a cutting tool and a boring machine, comprising:

an adjustable position tool holder having a first contact surface and including a cutting tool;

a coupling element for coupling said tool holder to the boring machine, said coupling element being slidably coupled to said tool holder and having a second contact surface in sliding contact with the first contact surface, said tool holder being adjustable laterally within a range of positions relative to the coupling element; and

means for applying a frictional force between the first and second contact surfaces which is sufficient to restrain the lateral position of the tool holder when the cutting tool is boring a hole, but which frictional force is insufficient to restrain the lateral position of the tool holder when the lateral position of the tool holder is adjusted.

22. (original) The apparatus of claim 21 wherein said applying means does not include a set screw.

23. (original) The apparatus of claim 21 wherein said applying means includes an electromagnetic solenoid.

24. (original) The apparatus of claim 21 wherein said applying means includes a hydraulic piston.

25. (original) The apparatus of claim 21 wherein said applying means is hydraulically actuated.

26. (original) The apparatus of claim 21 wherein said applying means is electrically actuated.

27. (original) The apparatus of claim 21 wherein said applying means includes a spring.

28. (original) The apparatus of claim 21 wherein said applying means is centrifugally actuated.

29. (original) The apparatus of claim 21 which further comprises coating one of the first contact surface or the second contact surface to modify the friction therebetween.

30. (original) An apparatus for machining a hole with a boring machine, comprising:

an adjustable position tool holder having a first contact surface and including a replaceable cutting tool;

a coupling element for coupling said tool holder to the boring machine, the coupling element having a second contact surface in sliding contact with the first contact surface and slidable in a linear direction, said tool holder being adjustable over a range of positions in the linear direction relative to said coupling element for machining a hole within a corresponding range of dimensions; and

a spring urging the first contact surface against the second contact surface to increase the friction between the first contact surface and the second contact surface.

31. (original) The apparatus of claim 30 wherein said spring has a first position for urging the first contact surface against the second contact surface with a first force, and a second position for urging the first contact surface against the second contact surface with a second force greater than the first force.

32. (original) The apparatus of claim 30 wherein at least one of the first contact surface or the second contact surface includes thereon a surface coating for modifying the friction between the first contact surface and the second contact surface.

33. (original) The apparatus of claim 30 wherein said tool holder is adapted and configured to rotate along an axis, and the axis is perpendicular to the linear direction of adjustment.

34. (original) The apparatus of claim 30 wherein the linear direction is a first linear direction, and said spring urges the first contact surface against the second contact surface in a second linear direction perpendicular to the first linear direction.

35-41 (withdrawn)

42. (original) An apparatus for machining a feature with a boring machine, comprising:

an adjustable position tool holder including a cutting tool;

a coupling element for coupling said tool holder to the boring machine, said coupling element being slidably coupled to said tool holder, said tool holder being adjustable within a range of positions relative to said coupling element for machining a corresponding range of features, said cutting tool holder being slidably adjustable relative to said coupling member in

a direction and being restrained by friction from sliding relative to said coupling member in the direction; and

means for automatically actuating a variable frictional force between said cutting tool holder and said coupling member.

43 (original) The apparatus of claim 42 wherein said automatic actuating means includes a cam pivotally coupled to said coupling element and a spring compressed by said cam.

44. (original) The apparatus of claim 43 which further comprises an electromagnetic solenoid coupled to said cam, said cam pivoting in response to energizing said solenoid.

45-59 (withdrawn).

60. (currently amended) An apparatus for machining a feature with a boring machine, comprising:

an adjustable position tool holder having a contact surface and including a replaceable cutting tool;

a coupling element for coupling the tool holder to the boring machine, said tool holder being slidable in a direction relative to said coupling element, said tool holder being

adjustable over a range of positions in the direction relative to said coupling element for machining a ~~[hole]~~ feature by said cutting tool within a range of dimensions that correspond to the range of positions; and

a biasing member applying a biasing force within said apparatus ~~[against the contact surface]~~ to increase a frictional force on the contact surface that restrains movement of said tool holder relative to said coupling element in the direction of sliding.

61. (original) The apparatus of claim 60 wherein the contact surface is a first contact surface, and which further comprises a movable member, said movable member having a second contact surface, said biasing member urging the first contact surface against the second contact surface.

62. (original) The apparatus of claim 61 wherein at least one of the first contact surface or the second contact surface includes a coating to control the friction between the first contact surface and the second contact surface.

63. (original) The apparatus of claim 60 wherein said biasing member is a spring having a length, said coupling member defines a pocket for holding said spring, the pocket having a depth, and the length is greater than the depth.

64. (currently amended) An apparatus for machining a feature with a boring machine, comprising:

an adjustable position tool holder having a contact surface and including a cutting tool;

a coupling element for coupling the tool holder to a boring machine, said tool holder being ~~[slidably adjustable]~~ slidable over a range of positions in a first direction relative to said coupling element for machining a feature within a range of dimensions that correspond to the range of positions;

a movable member within said coupling element and movable in a second direction at least partly orthogonal to said first direction, said movable member being substantially restrained from motion in the first direction; and

a biasing member applying a force at least partly in the second direction against said movable member.

65. (currently amended) An apparatus for machining a feature with a boring machine, comprising:

an adjustable position tool holder ~~[having a contact surface and]~~ including a cutting tool;

a coupling element for coupling the tool holder to a boring machine, said tool holder being slidably adjustable over a range of positions in a first direction relative to said coupling element for machining a feature by said cutting tool within a range of dimensions that correspond to the range of positions;

a movable member guided within said coupling element in a second direction at least partly orthogonal to the first direction and movable within said coupling element ; and

a biasing member applying a force against said movable member;

wherein said biasing member, said tool holder and said movable member are adapted and configured such that the force from said biasing member urges ~~[said movable member in the first direction and urges said movable member in a]~~ said tool holder in the second direction ~~[at least partly orthogonal to the first direction]~~.

66-79 (withdrawn)

80. (new) The apparatus of claim 64 which further comprises a bearing to facilitate sliding of said movable member relative to said coupling element in the second direction

81. (new) The apparatus of claim 80 wherein said biasing member is a first biasing member, and which further comprises a second biasing member urging said bearing against said movable member.

82. (new) The apparatus of claim 64 wherein one of said coupling element or said movable member include a surface adapted and configured for having a low coefficient of friction to facilitate sliding of the one of said coupling element or said movable member relative to the other of said coupling element or said movable member in the first direction.

83. (new) The apparatus of claim 64 which further comprises a bearing to facilitate sliding of said movable member relative to said tool holder in the first direction.

84. (new) The apparatus of claim 83 wherein said bearing is interposed along the path of the force applied by said biasing member at least partly in the second direction.

85. (new) The apparatus of claim 64 wherein one of said tool holder or said movable member include a surface adapted and configured for having a low coefficient of friction to facilitate sliding of the one of said tool holder or said movable member relative to the other of said tool holder or said movable member in the first direction.

86. (new) The apparatus of claim 64 wherein one of said tool holder or said coupling member include a surface adapted and configured for having a high coefficient of friction to discourage sliding of the one of said tool holder or said coupling member relative to the other of said tool holder or said coupling member in the first direction.

87. (new) The apparatus of claim 64 wherein at least a portion of the force applied against said movable member is also applied to said tool holder and frictionally restrains the movement of said tool holder in the first direction.

88. (new) The apparatus of claim 65 wherein said tool holder moves in the first direction in response to urging said movable member in the second direction.

89. (new) The apparatus of claim 65 wherein said movable member includes a first surface and said basing member urges against the first surface of said movable member.

90. (new) The apparatus of claim 89 wherein said movable member includes a second surface and the second surface of said movable member urges against a surface of said tool holder in response to urging by said biasing member.

91. (new) The apparatus of claim 65 wherein said movable member is guided to move linearly within said coupling element.

92. (new) The apparatus of claim 65 wherein the force applied by said biasing member is sufficient to frictionally restrain movement of said tool holder in the first direction.